Title (en)

IMPROVED ACTIVE SEARCH SENSOR AND A METHOD OF DETECTION USING NON-SPECULAR REFLECTIONS

Title (de)

VERBESSERTER AKTIV-SUCH-SENSOR UND VERFAHREN ZUR DETEKTION DURCH VERWENDUNG VON NICHTSPIEGELNDEN REFLEXIONEN

Title (fr)

CAPTEUR DE RECHERCHE ACTIF AMELIORE ET PROCEDE DE DETECTION AU MOYEN DE REFLEXIONS NON SPECULAIRES

Publication

EP 1728068 A4 20111214 (EN)

Application

EP 05723733 A 20050224

Priority

- US 2005005991 W 20050224
- US 54799004 P 20040226

Abstract (en)

[origin: US2007034776A1] It has been found that target optics produce non-specular, augmented optical returns when interrogated by a laser pulse. This non-specular radiation is detected by an active laser search system employing a direct-reading, thresholded focal plane detector that is able to detect non-cooperating targets with optics that employ a detector or optical element at the focal plane of their receiving optics. The pulses returned from such target optics have a width commensurate with the original transmitted pulse width, whereas passive background noise and the spread out active returns from the ground exhibit temporally long returns. By setting the sensor threshold sufficiently high, the system discriminates against noise and clutter while at the same time reducing the number of sweeps required to detect a target within the search area.

IPC 8 full level

G01S 7/48 (2006.01); G01S 7/495 (2006.01); G01S 17/42 (2006.01); G01J 1/18 (2006.01)

CPC (source: EP US)

G01S 7/4802 (2013.01 - EP US); G01S 7/495 (2013.01 - EP US); G01S 17/42 (2013.01 - EP US); G01J 1/18 (2013.01 - EP US)

Citation (search report)

- [XI] FR 2736731 A1 19970117 - MATRA DEFENSE [FR]
- See references of WO 2005082027A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

US 2007034776 A1 20070215; **US 7282695 B2 20071016**; EP 1728068 A2 20061206; EP 1728068 A4 20111214; EP 1728068 B1 20161102; IL 177670 A0 20061231; IL 177670 A 20130228; WO 2005082027 A2 20050909; WO 2005082027 A3 20061026

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